

# **MIPAS Cloud and Aerosol Extinction Observations from 09/2002 - 03/2004: an add-on to the ESA Offline Dataset**

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The Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on the ESA ENVISAT satellite has measured nearly continuously from September 2002 to March 2004. The ESA operational level 1 and 2 products for this period - the so called offline dataset - include no direct information on clouds and aerosols, such as cloud flagging or extinction profiles. The rapid forward model JURASSIC, recently developed in Juelich, and the standard optimal estimation approach will be applied to the MIPAS level 1 radiance data to retrieve extinction profiles at a number of wavelength regions. First results will be discussed with respect to retrieval errors due to instrument errors and uncertainties for contaminant species. Together with the simple colour-ratio based cloud indices for cloud detection, cloud top height and type specification a very useful add-on dataset to the ESA operational product can be generated. Some examples for scientific applications will be presented. It is planned to apply the retrieval processor to the whole dataset of MIPAS inclusive of the ongoing non-continuous measurement periods after April 2004. The latter level 1/2 dataset is currently evolving at the ESA data processing facilities.